

The Examiner requires that a single disclosed species be elected for prosecution on the merits. Applicants disagree with this requirement for the reasons discussed below. However, in compliance with the Examiner's requirement, election is made to the IL-4/IL-13 trap described in Example 10 of the specification. The claims which read upon this elected species are claims 1-4 and 10-25.

The invention described and claimed in the present application is directed to a fusion polypeptide comprising three components, and nucleic acids and expression systems utilized to produce this fusion polypeptide. The fusion polypeptide is a "trap" for cytokines. It binds to a cytokine and forms a complex with the cytokine that is not capable of transmitting a signal to a cell. Thus the fusion polypeptide inhibits the activity of the cytokine by tying up the free cytokine and preventing its binding to its receptors on a cell.

This cytokine "trap" is a fusion polypeptide that comprises a specificity determining region of a cytokine receptor attached to an extracellular portion of a signal transducing component of a cytokine receptor attached to a multimerizing component. A fusion polypeptide formulated according to the present invention is used to trap any cytokine for which the appropriate components of a cytokine receptor are utilized together with a multimerizing component.

The embodiments claimed in claims 4-9 are individual species of the genus. The invention is the fusion polypeptide trap in general, and the dependent claims 4-9 describe different cytokine receptors of the respective families that may be used to provide the components of the claimed invention.

By way of a perhaps overly simplistic analogy, the present invention may be similar to a genus claim to a chair comprising a vertical back component attached to a horizontal seat component attached to supporting legs. This chair would encompass multiple embodiments, including:

- a) where the back is wood, the seat is cushioned and the legs are metallic;
- b) where the back is fabric, the seat is wood and the legs are wooden; and
- c) where the back is plastic, the seat is plastic and the legs are plastic.

This invention may have myriad embodiments with components of different structural compositions, but all are within the genus of the claimed chair. Similarly, the claimed fusion polypeptide trap encompasses embodiments that have components of different structure, which each fall within the claimed genus.

In the present Office Action, the Examiner states that the cytokine receptors have different sequences, activities and expression patterns and are encoded by distinct chromosomal genes. The cytokine receptors listed in claims 4-9 are used to provide components of the claimed invention; the cytokine receptors listed in claims 4-9 are not the invention. Applicants agree that the embodiments of different fusion polypeptide traps have components specific for each trap; in fact, the different receptors in each of claims 4-9 are listed in a Markush group. However, the present invention is directed to the production of a specific type of fusion polypeptide that functions as a cytokine trap and is not limited in scope to a single cytokine trap. All fusion polypeptides, constructed as claimed by Applicants, that bind and form a nonfunctional complex with a cytokine are encompassed within the present invention.

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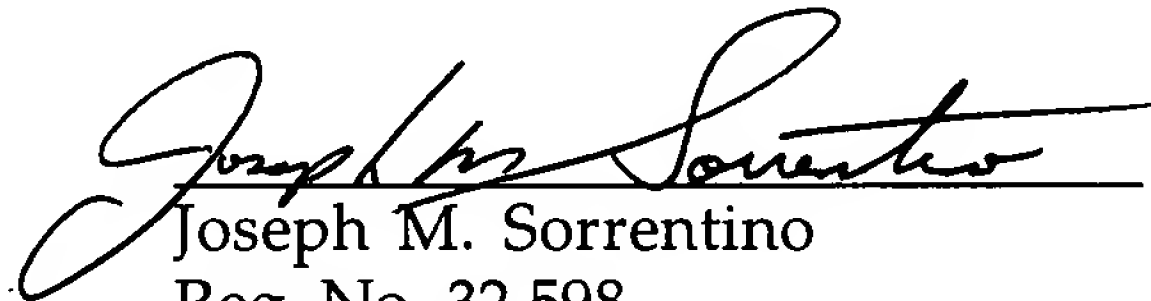
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In view of the above, Applicants respectfully request that the Examiner consider the present invention as the genus, and not limit it to individual species.

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Amendment and Response to
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No fee is believed due in the present application. If, however, a fee is deemed to be required, the Patent and Trademark Office is hereby authorized to charge any amount necessary, or credit any over-payment, to Deposit Account No. 18-0650.

Respectfully submitted,

A handwritten signature in cursive script, reading "Joseph M. Sorrentino", written over a horizontal line.

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